


IN THE CLAIMS

Please amend the claims as follows:

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1.-46. (Previously Canceled)

47. (Thrice Amended) A corrosion-resistant chemically continuous composite conduit having an inside and an outside, said conduit comprising from the outside to the inside:

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- a) a first layer comprising a porous, mineral-containing substrate;
  - b) a second layer comprising a thermosetting material, said thermosetting material containing a silane and an excess of curing agent comprising isocyanate groups;
  - c) a third layer comprising a thermoplastic material, said thermoplastic material impregnated with a reactive resin;

wherein an interface between said first and second layers comprises covalent bonds between said silane in said second layer and minerals in said first layer;

wherein an interface between said second and third layers comprises covalent bonds between said isocyanate groups of said second layer and said reactive resin of said third layer;

wherein said second layer is sufficiently rigid to transmit stresses between said first and third layers; wherein said third layer has a tensile strength sufficient to support a portion of said stresses; and wherein said first, second and third layers are bonded together with sufficient shear strength to transmit and distribute said stresses between said layers.

48. (Previously Added) The conduit of claim 47, wherein said first layer comprises a cementitious, ceramic, clay, brick, or metallic substrate.

49. (Previously Added) The conduit of claim 47, wherein said thermosetting material is polyurethane resin.


50. (Previously Added) The conduit of claim 47, wherein said thermosetting material contains a surfactant.

51. (Currently Amended) The conduit of claim 47, wherein said reactive resin is a polymer, said polymer being a copolymer of 2-propenoic acid, 2-hydroxypropyl ester, ~~polymer with~~ chloroethene and ethenyl acetate.

52. (Previously Added) The conduit of claim 47, wherein said thermoplastic material is PVC.

53. (Previously Amended) The conduit of claim 47, wherein said PVC has a tensile strength of 5,000 to 10,000 psi.

54. (Previously Added) A method for lining a porous, mineral-containing conduit, said method comprising the steps of:

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- a) impregnating a sheet of thermoplastic material with a reactive resin;
  - b) positioning said sheet of thermoplastic material within the interior of said conduit spaced apart from an inner surface of said conduit;
  - c) inserting a thermosetting material between said sheet of thermoplastic material and said inner surface, said thermosetting material containing a silane and a curing agent comprising isocyanate groups;

wherein said silane forms covalent bonds with said minerals in said conduit;

wherein said isocyanate groups form covalent bonds with said reactive resin of said thermoplastic sheet;

wherein said thermoplastic sheet, said thermosetting material, and said conduit are bonded together with sufficient shear strength to transmit and distribute loads between them.

55. (Previously Amended) The method of claim 54, wherein said conduit comprises a cementitious, ceramic, clay, brick, or metallic substrate.

56. (Previously Amended) The method of claim 54, wherein said thermosetting material is polyurethane resin.

57. (Previously Amended) The method of claim 54,  
wherein said thermosetting material contains a surfactant.

58. (Previously Amended) The method of claim 54,  
wherein said reactive resin is 2-propenoic acid, 2-  
hydroxypropyl ester, polymer with chloroethene and ethenyl  
acetate.

59. (Previously Amended) The method of claim 54,  
wherein said thermoplastic material is PVC.

60. (Previously Amended) The method of claim 54,  
wherein said PVC has a tensile strength of 5,000 to 10,000  
psi.

61. (Previously Added) The conduit of claim 47,  
wherein said stresses include compressive, tensile and  
shear stresses due to one or more of earth loads, live  
loads and hydrostatic loads.

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